The critical ingredients of assertive community treatment

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In their paradigm-shifting study, Stein and Test (1) developed and evaluated a community mental health treatment model for people with serious mental illness that became known as assertive community treatment (ACT). Their approach challenged many standard practices and beliefs in psychiatry. Based on earlier work, they had concluded (2) that hospital training programs to prepare patients for community living after discharge were ineffective, and that providing training and support within community settings after discharge was far superior. The principle of *in vivo assessment, training and support* became a cornerstone of the ACT model. With the locus of contact in the community, ACT used *assertive outreach* to engage clients who were reluctant to keep appointments at a clinic.

Another critical ingredient of the ACT model was a *holistic approach* to services, helping with illness management, medication management, housing, finances, and anything else critical to an individual's community adjustment. ACT services included assistance in routine practical problems in living, such as shopping and using public transportation. Along with the focus on the client's immediate needs and personal goals, the shift in service delivery to community settings dramatically increased client engagement in and satisfaction with mental health services (3).

Drawing on their experience on hospital treatment teams, Stein and Test formulated the ACT model as requiring a *multidisciplinary team* of mental health professionals, providing intensive, timely, and personalized services, facilitated through frequent team meetings to review treatment plans and services. ACT was also conceived as a *direct service model,* with clinicians providing most needed services themselves rather than referring to other providers. Another feature of the model with far-reaching influence was *integration of services,* which has demonstrated advantages over brokered approaches (i.e., referring clients to other programs for many services). ACT teams integrated mental health treatment, housing, rehabilitation, and many other services, and tailored them to the needs and goals of each client.

Another core feature of the ACT model was a *low client-staff ratio* of approximately 10 clients per full-time ACT practitioner. This staffing pattern permitted multiple contacts each week with clients needing intensive support. In addition, teams provided *continuous coverage,* responding quickly to client emergencies, 24 hours per day, seven days per week. Finally, ACT teams committed to *long-term and continuous care*. Initially, the model promised lifelong care.

RESEARCH ON EFFECTIVENESS

In the decades following the Stein and Test (1) study, dozens of randomized controlled trials of ACT evaluated its effectiveness for promoting community reintegration of people with severe mental illness. Several reviews concluded that ACT was more effective than standard services in reducing hospital use and increasing community tenure (3), and numerous practice guidelines endorsed ACT as an evidence-based practice for the treatment of schizophrenia (4). The impact of ACT on outcomes other than hospital use and community tenure was less clear, though some studies found improvements in stable housing, symptom management, and quality of life (3).

Research also began to identify the client populations for which ACT was most effective. ACT was strongly effective and cost-effective for clients who returned repeatedly to psychiatric hospitals; conversely, it was less effective and clearly not cost-effective for infrequently hospitalized clients (5). Extensions of the ACT model to homeless people with severe mental illness aimed at reducing homelessness were also generally effective, especially when integrated with evidence-based housing models (6).

MODIFICATIONS

Although some proponents of ACT insisted on orthodoxy, most endorsed ACT as a flexible service model that could be augmented with other evidence-based practices to address specific target populations and outcome domains. Over time, many ACT teams incorporated substance abuse treatments, supported employment, and family psychoeducation (7). In addition, modified ACT teams tailored services for clients experiencing early episodes of psychosis (8), those with borderline personality disorder (9), and those with criminal justice histories (10). Recent attention has focused on enhancing the experience of recovery, especially functional recovery and quality of life (11). Most of these augmentations have not yet been carefully studied, and in some areas the results have been mixed, but overall these innovations represent significant progress in defining the ACT model.

ACT FIDELITY

Several research groups have operationally defined the critical ingredients of ACT by developing fidelity scales. These scales measure implementation of the essential features of a model and enable program leaders to achieve and maintain model standards. One widely-used scale, the Dartmouth ACT Fidelity Scale (DACTS) (12), has been a valid tool for determining whether programs follow ACT principles. A more recent scale expanded the DACTS to include greater specification of staff roles and assessment of recovery-oriented services (11).

A meta-analysis evaluating the relationship between ACT fidelity and reduction of hospital use employed two broad indices measuring critical ingredients of the ACT model: *staffing* (low client-staff ratio, optimal team size, and inclusion of psychiatrist and nurse in the team) and *organization* (e.g., ACT team provides care directly rather than brokering, daily team meeting, and 24-hour access) (13). Organization predicted significant reductions in hospital use, while staffing did not. Thus, this study provided empirical support for the organizational components of ACT, but cast doubt on the necessity of multidisciplinary staffing standards.

ABSORPTION IN STANDARD SERVICES

The widespread endorsement of ACT by mental health leaders encouraged many states in the U.S. as well as other countries to adopt it as a service model. However, several large-scale evaluations in the U.K. failed to show any advantage for ACT over standard services, leading one researcher to conclude that ACT was effective only in communities with inadequate community mental health systems and an overutilization of psychiatric hospitals (14), precisely because standard mental health services in the U.K. had already adopted many of the innovations pioneered by ACT. Similarly, controlled trials in the U.S., particularly in good service areas, have not consistently found better outcomes for ACT in recent years, as the U.S. has continued to sharply reduce the rate of hospitalization admissions and length of hospital stays. Internationally, ACT continues to be an attractive service model option in some nations, such as Japan (15), with poorly developed community mental health services and routine use of long-term hospitalizations.

CURRENT VIEWS OF THE CRITICAL INGREDIENTS OF ACT

Current mental health services researchers believe that the organizational features of ACT are sound, as proven by their widespread emulation, and that any complex intervention needs to be flexible over time to respond to changes in values, context, culture, and research. Although ACT may have lost its preeminence as the most empirically supported of all community mental health treatment approaches (14), its monumental contribution in providing a clear, operationally defined treatment model with extensive research support remains exemplary. Many critical ingredients of ACT have been assimilated into standard practice in progressive mental health systems.

Several core components of the original ACT model have not endured. The principle of time-unlimited support – i.e., that clients should receive ACT indefinitely – is not evidence-based, recovery-oriented, practical, or cost-effective, and it has essentially been dropped and replaced with policies encouraging graduation (16). The multidisciplinary concept has gradually transformed to recognize that team members need to learn new competencies continuously as evidence-based practices emerge.

Other limits of ACT have been acknowledged. ACT is not well suited to rural settings, because sparsely-populated communities lack a critical mass of service users requiring intensive mental health services. To accommodate rural settings, a Dutch hybrid service model called flexible ACT (FACT) has embedded a short-term ACT team within a clinical treatment team, providing intensive services for clients who are in crisis, with easy transition to and from usual services (17). Other modified versions of ACT to support transitions and flexibility have been developed (e.g., 18), but no clearly superior model has emerged.

Influenced by research on related care management models, specifications for the critical ingredients of the ACT model continue to expand. ACT teams now incorporate ingredients such as *a focus on recovery, shared decision making, outcome-based supervision, strengths-based treatment planning,* and *use of generic community resources* (7).

CONCLUSIONS

ACT was the leading model of community mental health services developed during the latter half of the 20th century. It facilitated deinstitutionalization and enabled successful community reintegration for thousands of people with serious mental illness. The key principles of ACT – outreach, delivery of services in the community, holistic and integrated services, and continuity of care – continue to influence the structure of mental health services in profound ways over much of the world.

The structure and flexibility of ACT has permitted myriad adaptations. Thus, ACT remains relevant for service systems and clients with multiple needs in many settings. Complex service models such as ACT must continue to adapt over time, as new concepts, new environments, new stresses, and new empirically-supported practices emerge.

References

1. Stein LI, Test MA. An alternative to mental health treatment. I: Conceptual model, treatment program, and clinical evaluation. Arch Gen Psychiatry 1980;37:392-7.
2. Test MA, Stein LI. Practice guidelines for the community treatment of markedly impaired patients. Community Ment Health J 1976;12:72-82.
3. Bond GR, Drake RE, Mueser KT et al. Assertive community treatment for people with severe mental illness: critical ingredients and impact on patients. Dis Manag Health Outcomes 2001;9: 141-59.
4. Dixon LB, Dickerson F, Bellack AS et al. The 2009 Schizophrenia PORT psychosocial treatment recommendations and summary statements. Schizophr Bull 2010;36:48-70.
5. Dieterich M, Irving CB, Park B et al. Intensive case management for people with severe mental illness. Cochrane Database Syst Rev 2010;10:CD007906.
6. Tsemberis S, Gulcur L, Nakae M. Housing First, consumer choice, and harm reduction for homeless individuals with a dual diagnosis. Am J Public Health 2004;94:651-6.
7. Goscha RJ, Rapp CA, Bond GR et al. Case management and community psychiatry. In: McQuistion HL, Sowers WE, Ranz JM et al (eds). Handbook of community psychiatry. New York: Springer, 2012:293-308.
8. Nordentoft M, Melau M, Iversen T et al. From research to practice: how OPUS treatment was accepted and implemented throughout Denmark. Early Interv Psychiatry 2015;9:156-62.
9. Burroughs T, Somerville J. Utilization of evidence based dialectical behavioral therapy in assertive community treatment: examining feasibility and challenges. Community Ment Health J 2013;49: 25-32.
10. Morrissey JP, Meyer P, Cuddeback G. Extending assertive community treatment to criminal justice settings: origins, current evidence, and future directions. Community Ment Health J 2007;43: 527-44.
11. Monroe-DeVita M, Teague GB, Moser LL. The TMACT: a new tool for measuring fidelity to assertive community treatment. J Am Psychiatr Nurses Assoc 2011;17:17-29.
12. Teague GB, Bond GR, Drake RE. Program fidelity in assertive community treatment: development and use of a measure. Am J Orthopsychiatry 1998;68:216-32.
13. Burns T, Catty J, Dash M et al. Use of intensive case management to reduce time in hospital in people with severe mental illness: systematic review and meta-regression. BMJ 2007;335:336-40.
14. Burns T. The rise and fall of assertive community treatment? Int Rev Psychiatry 2010;22:130-7.
15. Nishio M, Ito J, Oshima I et al. Preliminary outcome study on assertive community treatment in Japan. Psychiatry Clin Neurosci 2012;66:383-9.
16. Finnerty MT, Manuel JI, Tochterman AZ et al. Clinicians perceptions of challenges and strategies of transition from assertive community treatment to less intensive services. Community Ment Health J 2015;51:85-95.
17. van Veldhuizen JR. A Dutch version of ACT. Community Ment Health J 2007;43:421-3.
18. Nordén T, Malm U, Norlander T. Resource group assertive community treatment (RACT) as a tool of empowerment for clients with severe mental illness: a meta-analysis. Clin Pract Epidemiol Ment Health 2012;8:144-51.

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